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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/805,031	ZIGMOND ET AL.	
	Examiner	Art Unit	
	Ryan Stronczer	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 June 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25,27 and 28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25,27-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claim1-12 and 21-28 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments, see pages 14-15, filed 24 June 2008, with respect to the rejection(s) of claim(s) 13-20 under 35 U.S.C. 102 have been fully considered and are persuasive. Therefore, the rejection(s) has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Barker and Lees.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: resolving a conflict between the identified and other metadata. Claim 22 recites "wherein resolving the conflict comprises… the display of available content displays both the identified metadata and the other metadata," however it is unclear from the claim language how the conflict between the two sets of metadata is resolved simply by displaying both sets on the display.

Claim Rejections - 35 USC § 103

Claims 1-7 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al. (Pub. No.: US 2003/0093790 and further in view of Knudson et al. (US Pat. No.: 6,536,041).

As to claim 1, Fig. 1 of Logan teaches a system for editing previously recorded video content according to metadata received after said program has been recorded. Logan teaches recording a live program and associated metadata and Examiner takes Official Notice that it is well known in the art for metadata associated with a program to include a scheduled program length.

Logan further teaches the limitations of "receiving updated metadata associated with the live broadcast…[and] replacing the previously recorded metadata with the updated metadata." As to the amended limitations "wherein the [updated] metadata indicates an exact program length…and if a length of the recorded live broadcast is greater than the exact program length, then deleting from the client device a portion of the recording that exceeds the exact program length; wherein the recording of the live broadcast continues for longer than the scheduled program length," paragraph 0113 of Logan teaches that because the metadata available at the time of the original recording may not be exact, that the system may allow the user to record extra time—"running room"—and then delete the unwanted extra portion at a later time. Furthermore, Logan teaches that a *"mechanism which…[uses] metadata to trim the unwanted portions [of a recorded program] after a recording. The 'trimming' process may be accomplished in at least two ways: by editing the recording to delete the unwanted portions leaving just the*

desired segments" [0421] Though Logan teaches receiving updated metadata regarding a program and that later editing, including deleting unwanted "running room," may be done in accordance with the metadata, it does not explicitly teach receiving a metadata update that includes the exact running length of a program, as recited. Knudson teaches an analogous system for updating the metadata of a live program such as a baseball game wherein *"...game recap information may be provided to the program guide. Game recap information may include game highlights or any other suitable game summary information... Event update information may include, for example, changes to the currently scheduled game time due to a weather delay"* (col. 18/lines 8-17). In light of Logan's teachings regarding recording additional "running room" to ensure that an entire program is recorded when the precise end time and running length of a program is not available in the original metadata, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system of Logan with the game recap and event update information taught by Knudson to provide users with an exact end time and running length of a live program after its conclusion to allow users to precisely edit a recorded program. Logan teaches that deleting unwanted portions from recorded programming is desirable so as to conserve disk space on a DVR [0421].

As to claim 2, Fig. 23 of Knudson teaches that at step **248**, the program guide *"presents the user with an opportunity to request sports information... the user may request any of these types of information by displaying a program listings screen...or a program information screen"* (col. 18/lines 31-60). It would have been obvious to one of

ordinary skill in the art at the time of the invention that providing the user with the opportunity to request updated metadata regarding a program would have resulted in the user "periodically" requesting updated metadata regarding recorded live broadcasts, as recited.

As to claim 3, paragraph 0113 of Logan teaches recording extra time past the scheduled end of a program ("running room") to ensure that *"every program has at least the entire rendition to it"* [0113]. Examiner further takes Official Notice that it is well known in the art for a DVR to allow a user to record extra time consistent with the running room taught by Logan to allow for live events--such as sports games--which may run longer than the scheduled time (e.g., if the game goes into overtime). It would have been obvious to one of ordinary skill in the art at the time of the invention that the user could have scheduled the running room to be any length he or she deemed necessary to ensure recording of the entire program, including the recited 133% of the scheduled length.

As to claim 4, both Logan and Knudson teach a content server with stores and/or distributes metadata. Knudson teaches [INSERT col.2/18-35] which is consistent with the recited "plurality of data providers." As to the limitation that the content server "automatically receives updates from the plurality of data providers," Knudson teaches that the program guide *"may access the stored real-time after the conclusion of a live event"* (col. 2/lines 41-43).

As to claim 5, Fig. 4 and 5 of Logan teach a user interface that can be displayed at the user's request. Fig. 5 shows the metadata associated with the content, in this

case a list of segments of the program, a synopsis of the highlighted segment, and a status bar indicating the length of the program and the relative lengths of the segments. Given that Logan teaches receiving updated metadata for recorded content, it would have been obvious to one of ordinary skill in the art that the system could display updated segment titles, lengths, or synopsis according to the updated metadata.

As to claim 6, Knudson teaches that *"The real-time data transmitted to television distribution facility 26 may include current sports scores"* (col.6/lines 19-22).

As to the timestamp associated with the updated metadata recited in claim 7, Logan teaches that *"when* [updated] *metadata created at the remote location must be associated with program content received at the user location...these 'time stamp' values are sent with the metadata to the user location and matched against time stamp information associated with the broadcast programming..."* [0080].

As to claims 10, communicating the updated metadata is inherent in the systems of both Logan and Knudson.

As to claim 11, Knudson, as cited above, teaches that the real-time data sources can be used to provide updates for sporting events. Examiner takes Official Notice that a DVR, as taught by Logan, can record any broadcasted program and its associated metadata.

As to claim 12, the recited computer-readable memories are inherent in the systems taught by Logan and Knudson.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Logan in view of Knudson as applied to claim 1 above, and further in view of Lees et al. (US Pat. No.: 7,162,499).

As to claim 8, it is inherent in Logan and Knudson that the system is able to update presently stored metadata with newly received metadata regardless of whether said presently stored metadata has been previously updated and Logan and Knudson, as analyzed above w/r/t claim 1 teach that the system can delete unwanted portions of a recorded program in accordance with the metadata. However, while Logan and Knudson teach methods for replacing originally received metadata with metadata received after the original broadcast of the program, they do not explicitly teach a method for determining if the later-received metadata is more current than the previously received metadata and keeping the more current of the two sets. Lees teaches an analogous method for determining which of two or more sets of metadata is the most current and keeping that most current version. Fig. 2 of Lees teaches identification data **116** which includes a version number (e.g., v2) and a timestamp (e.g., t3) as depicted in elements **202** and **206**. Lees teaches that the version number and timestamp are used to resolve a conflict between metadata versions and determine which version of metadata for a given object is the most current:

> In the example, both network sites have a version2 (v2) in metadata 132 for members attribute 130. Thus, computer B wins the replication conflict because the latest timestamp is time3 (t3) which is later than time2 (t2) at computer A. Other resolution policies may resolve replication conflicts with only a version number, or with only a timestamp. [Col. 3, Line 66 – Col. 4, Line 5]

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the conflict resolution method taught by Lees into the metadata

updating system taught by Logan and Knudson to ensure that the user always has access to the most current metadata available for recorded content.

As to claim 9, Lees teaches that the system can determine which of a plurality of sets of metadata is most current. If the previously-received metadata is determined to be more current than the later-received metadata, it would have been obvious to one of ordinary skill in the art at the time of the invention to discard the later-received metadata to ensure that the user always has access to the most current metadata available for recorded content.

Claims 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barker et al. (Pub. No.: US 2002/0143976) and further in view of Lees et al. and Kaars et al (Pub. No.: US 2003/0056010).

As to claim 13, 16, and 17 barker teaches the method comprising "receiving metadata associated with program content *(Fig. 1 of Barker teaches a system in which distribution endpoint **45** receives an asset bundle comprising "asset id, metadata storage device locator, metadata, and asset" (Fig. 3/**340**) from asset provider **5**)*; providing the received metadata to a plurality of client devices *(Barker teaches that distribution endpoint 45 can be a "cable headend (or 'distribution endpoint')" [0033] which can inherently the provide the asset and metadata to a plurality of client devices)*; receiving updated metadata associated with the program content *(Fig. 9 of Barker teaches a process by which distribution endpoint 45 receives updated metadata [step*

***910**] and stores it in the metadata cache [step **920**])*…[and] providing the updated metadata to the plurality of client devices *(Fig. 9/**950**)*."

Though Barker teaches receiving and storing updated metadata, it does not explicitly teach the recited "determining whether the updated metadata is more current than the previously received metadata." Lees, as analyzed above, teaches an analogous method for determining which a plurality of sets of metadata is the most current and keeping that most current version. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the conflict resolution method taught by Lees into the system taught by Barker to ensure that the most current version of the metadata for a program was retained in the memory.

As to the recited "if the updated metadata is more current than the previously received metadata: replacing the previously received metadata with the updated metadata," though Fig. 9 of Barker teaches that the new metadata is stored in the metadata cache, it does not explicitly teach that the old metadata is replaced. In an analogous system for updating metadata, Kaars teaches that *"the* [new] *metadata **789** is used to replace the* [old] *metadata **456**…the metadata **456** may have been corrupted during transfer to the device **100**…Second, the metadata **456** may be outdated and needs to be replaced with the new metadata **789** comprising up-to-date information…"* [0022]. It would have been obvious to one of ordinary skill in the art at the time of the invention that replacing the older metadata, as taught by Kaars, would enable the distribution endpoint of Barker to maximize the amount of free space in its metadata cache by not storing outdated versions of the same metadata.

As to claim 14, the combination of Barker in view of Lees and Kaars, as analyzed above provides a system in which the most current version from among a plurality of sets of metadata relating to the same object is selected. Though Kaars teaches that the original metadata is replaced with the most recently received set of metadata, in light of the teachings of Lees it would have been obvious to one of ordinary skill in the art at the time of the invention that the conflict resolution taught by Lees could be used to determine which set of metadata is most current and to replace the currently stored metadata in the metadata cache taught by Barker, if appropriate.

As to claim 15, Lees teaches the metadata includes both a version number and a timestamp for determining which set is most current.

As to claim 18, Fig. 7 of Barker teaches the recited "requesting updated metadata associated with the program content periodically" at steps 720 and 730.

As to claim 19, Kaars teaches that "*…the* [old] *metadata **456** may be outdated and needs to be replaced with the new metadata **789** comprising up-to-date information…"* [0022].

As to claim 20, the recited "computer readable memories" are inherent in the systems taught by Barker, Kaars, and Lees.

Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Logan in view of Knudson as applied to claim 1 above, and further in view of Lees et al.

The system taught by Logan and Knudson can display an EPG detailing available content as well as metadata associated with said content, said metadata being received from a plurality of real time data sources (Knudson, Fig. 1/**30**); however, Logan and Knudson do not explicitly teach conflict resolution between conflicting sets of metadata. Lees, as analyzed above, teaches an analogous system for updating metadata which determines which of a plurality of sets of metadata is most current. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system of Logan and Knudson with the conflict resolution taught by Lees (see above) to ensure that users of Logan and Knudson's system had the most current metadata.

Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Logan in view of Knudson as applied to claim 21 above, and further in view of Marsh et al. (US 2004/0003403).

As analyzed above, Logan and Knudson teaches that the client can receive real-time metadata updates from a plurality of real-time data sources. Though Knudson teaches that the system can delete metadata after a certain "expiration time" passes (to avoid caching outdated metadata), it does not explicitly teach how to resolve conflicting information about the same program received from multiple sources. Marsh teaches an analogous system for receiving metadata updates from multiple sources in which:

> Each piece of metadata is typically tagged with its source. This allows updates, but also allows stack ranking decisions to be made based on different provider trust levels for each metadata category. Each metadata provider is allocated a MSI [metadata source identifier]. The MSI numbers, and details of the different

> providers, together with their pecking order for the different metadata categories, are defined in a separate table. [0057]

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system taught by Logan and Knudson with the provider trust levels taught by Marsh to facilitate conflict resolution when receiving conflicting metadata for a particular program. Further, it would have been obvious to use the metadata deletion taught by Knudson to discard the less current version of the metadata.

Claims 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al. as applied to claim 1 above, and further in view of Lees et al.

As to claim 25, Fig. 1 of Logan teaches a DVR which can record broadcast content and associated metadata and inherently comprises the recited storage device and processor. As analyzed above, Logan teaches receiving updated metadata associated with the broadcast content and replacing the previously recorded metadata with the updated metadata, as recited; however, Logan does not explicitly teach determining if the updated metadata is more current than the previously recorded metadata. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system of Logan with the conflict resolution taught by Lees (see above) to ensure that users of Logan's system had the most current metadata. As to the recited "two-way communication interface coupled to the processor, wherein the communication interface is configured to receive updated metadata from a plurality of data providers coupled to the apparatus…and a modem coupled to the processor,

wherein the modem comprises at least one of a Public Switched Telephone Network (PSTN) modem, a Digital Subscriber Line (DSL) modem, or a cable modem," Logan teaches: *"communication methods or apparatus used to transport metadata and/or content to the user as illustrated at **130** may take many different forms, including: the Internet, a dialup telephone connection through the public switched telephone network (PSTN)…"* [0050].

As to the recited "and wherein the updated metadata is communicated using simple object access protocol (SOAP) messages transported using hypertext transfer protocol (http)," paragraph 0050 of Logan teaches that the updated metadata can be transmitted to the user via the Internet. Examiner takes Official Notice that the use of HTTP is notoriously well-known and widely practiced in the art for transmitting data over an Internet connection, such as that taught by Logan, and would it have been obvious to one of ordinary skill in the art at the time of the invention to use the HTTP protocol to transfer the metadata to Logan's client device. Examiner further takes Official Notice that SOAP is similarly well-known and widely-practiced in the art as a method for exchanging messages or data over an Internet application layer protocol such as HTTP and that it would have been obvious to one of ordinary skill in the art at the time of the invention to use the SOAP protocol to connect Logan's client device with the plurality of metadata sources via the Internet connection taught by Logan.

As to claim 27, the recited functionality is taught by fig. 3-5 of Logan.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Logan as applied to claim 25 above, and further in view of Barker et al.

Though Logan teaches the system of claim 25, it does not explicitly teach "requesting updated metadata associated with the broadcast content at regular intervals," as recited. Barker (as analyzed above) teaches an analogous system for compiling updated metadata for broadcast content. Fig. 7, steps 720 and 730 of Barker teach requesting updated metadata after a "polling interval" has expired. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the Logan system with the polling interval taught by Barker to prevent users from having to manually request updated metadata for their recorded programs.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Stronczer whose telephone number is (571) 270-3756. The examiner can normally be reached on 7:30 AM - 5:00 PM (EDT), Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian T. Pendleton can be reached on (571) 272-7527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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